

**METRIC**

**A-A-20184A**

**March 27, 2002**

**SUPERSEDING**

**A-A-20184**

**November 19, 1993**

## **COMMERCIAL ITEM DESCRIPTION**

### **COFFEE, INSTANT**

**The U.S. Department of Agriculture (USDA) has  
authorized the use of this Commercial Item Description.**

**1. SCOPE.** This Commercial Item Description (CID) covers instant coffee, packed in commercially acceptable containers, suitable for use by Federal, State, local governments, and other interested parties; and as a component of operational rations.

#### **2. PURCHASER NOTES.**

##### **2.1 Purchasers *shall specify* the following:**

- Type(s) and style(s) of instant coffee required (Sec. 3).
- When analytical requirements are different than specified (Sec. 6.1).
- When analytical requirements need to be verified (Sec. 6.2).
- Manufacturer's/distributor's certification (Sec. 9.2) or USDA certification (Sec. 9.3).

##### **2.2 Purchasers *may specify* the following:**

- Manufacturer's quality assurance (Sec. 9.1 with 9.1.1) or (Sec. 9.1 with 9.1.2).
- Packaging requirements other than commercial (Sec. 10).

**3. CLASSIFICATION.** The instant coffee shall conform to the following list which shall be specified in the solicitation, contract, or purchase order.

#### **Types and styles.**

- Type I** - Spray dried, powdered
- Type II** - Spray dried, agglomerated
- Type III** - Freeze dried
- Type IV** - Other

**AMSC N/A**

**FSC 8955**

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**Style A** - Regular

**Style B** - Decaffeinated

### **4. MANUFACTURER'S/DISTRIBUTOR'S NOTES. Manufacturer's/distributor's products shall meet the requirements of the:**

- Salient characteristics (Sec. 5).
- Analytical requirements: *as specified by the purchaser* (Sec. 6).
- Manufacturer's/distributor's product assurance (Sec. 7).
- Regulatory requirements (Sec. 8).
- Quality assurance provisions: *as specified by the purchaser* (Sec. 9).
- Packaging requirements other than commercial: *as specified by the purchaser* (Sec. 10).

### **5. SALIENT CHARACTERISTICS.**

**5.1. Ingredients.** The roasted and ground coffee from which the instant coffees are derived shall be made from coffee received in the raw or green bean state.

**5.1.1 Raw coffee beans.** Raw or green coffee beans are defined as the dried coffee seed (no less than Grade 8 as measured by the procedure of the FDA Technical Bulletin No.5 - Macroanalytical Procedures Manual, Chapter V, 1984) commercially free from external layers such as; skin, hull, pulp, mucilage, parchment, and silver skin. Single types or blends of coffee beans shall be of such growths and grade as to produce an end product cup quality free of caramelized, burnt, straw-like, fermented, musty, strong bitter or other objectionable flavors.

**5.1.2 Decaffeinated coffee.** When specified, coffee shall be decaffeinated using good manufacturing practices (21 CFR Part 110).

**5.2 Processing.** The coffee beans shall be processed using concentrating/brew extraction, and either spray or freeze drying. The product shall be prepared in accordance with good manufacturing practices (21 CFR Part 110). Unless otherwise specified in the solicitation, contract, or purchase order, processing shall be performed domestically.

### **5.3 Finished product.**

**5.3.1 Type I.** Instant coffee shall be a spray dried powder.

**5.3.2 Type II.** Instant coffee shall be spray dried particles and shall be agglomerated with steam to form a granular appearing product.

**5.3.3 Type III.** Instant freeze dried soluble coffee shall be processed mainly by sublimation during drying. The extract shall be frozen and then freeze dried in a low temperature vacuum system by sublimation from the ice crystal structure to remove most of the water. When specified for Department of Defense procurements, Type III coffee shall be screened to a particle size as specified in Sec. 6.1.2.

**5.3.4 Flavor and aroma.** The instant coffee shall be rehydrated by the addition of water at a temperature between 85°C (185°F) to just below the boiling point. The prepared beverage shall be free from caramelized, burnt, straw-like, fermented, musty, strong bitter or any other objectionable flavor or odor. All types shall produce a cup of coffee that has the characteristic flavor and aroma of high quality instant coffee.

**5.3.5 Bid sample.** Unless otherwise specified in the solicitation, contract, or purchase order, a bid sample shall be submitted and evaluated for conformance to Sec. 5.3.4.

**5.4 Foreign materials.** The finished product shall be clean, sound, wholesome, and free from evidence of rodent or insect infestation.

## 6. ANALYTICAL REQUIREMENTS.

**6.1 Analytical and physical requirements.** Unless otherwise specified in the solicitation, contract, or purchase order, the analytical requirements for the instant coffee shall be as follows:

**6.1.1 Sediment.** The instant coffee shall have not more than 2.5 milligrams of coffee sediment on disk, when compared to sediment disk 3.

**6.1.2 Particle size.** When specified for Department of Defense procurements, Type III instant coffee shall meet the following requirements:

<u>U.S. Standard sieve size</u>	<u>Percent retained (by weight)</u>
8	0
12	20 maximum
40	80 ± 15
Pan	15 maximum

**TABLE I. Analytical requirements (percent by dry weight)**

<b>Type</b>	<b>Caffeine (minimum)</b>	<b>Moisture (maximum)</b>
Type I, Style A	2.0	3.0
Type II, Style A	2.0	5.0
Type III, Style A	2.2	2.6
Type I, Style B	<u>1</u> /	3.0
Type II, Style B	<u>1</u> /	5.0
Type III, Style B	<u>1</u> /	2.6

1/ Style B decaffeinated coffee shall have a maximum 0.3 percent caffeine.

**6.2 Product verification.** When USDA verification of analytical requirements is specified in the solicitation, contract, or purchase order, the following procedures will be followed.

**6.2.1 Sampling procedures.** USDA inspection service will select the number of product containers based on USDA inspection service sampling procedures and plans.

**6.2.2 Composite sample.** Analytical testing shall be performed on a composite sample. The composite sample shall be 227 grams (8 ounces) and prepared from subsamples drawn from randomly selected containers. The number of subsamples used to create the composite shall be based on USDA procedures.

**6.3 Analytical testing.** When specified in the solicitation, contract, or purchase order, the analyses shall be made in accordance with the following method from the Official Methods of Analysis of the AOAC International or as listed below:

<b><u>Test</u></b>	<b><u>Method</u></b>
Caffeine	960.25
Moisture <u>2</u> /	979.12
Sediment <u>3</u> /	United States Sediment Standards for Milk and Milk Products
Particle size <u>4</u> /	

**2/** Temperature during drying shall be 60° to 70°C (140° to 158°F) under a pressure of 3.9 inches to 5.9 inches (9.906 to 14.986 cm) Hg.

**3/** Weigh 5.0 grams of instant coffee into a clean 250 mL beaker. Add 200 mL of 85° - 100°C (185° - 212°F) distilled water. Stir until coffee is completely dissolved. Filter the hot coffee through a sediment filtering apparatus (see note below). The coffee solution shall not be less than 60°C (140°F) at the time of filtration. The filtering apparatus shall hold 3.175 cm (1-1/4 inch) sediment disk and have an effective filtering area with a 2.8575 cm (1-1/8 inch) diameter. The 2.8575 cm (1-1/8 inch) diameter filtering area must be unobstructed except for a wire screen or wire screen and perforated plate support for filter disk, and constructed so that no sample being filtered can bypass the filtering material. Rinse the beaker and the sediment tester with 85°C (185°F) distilled water (not to exceed 200 mL) so as to transfer all sediment to the surface of the filter material and to rinse out all of the soluble coffee from the filter. Carefully remove the filter containing the sediment from apparatus and air dry the filter. Compare the dried filter with the photographs of the United States Sediment Standards for Milk and Milk Products.

**NOTE:** The sediment testing apparatus used in performing the sediment test is a Model KL Sediment tester, available from The Sediment Testing Equipment and Supply Company, 7366 North Greenview Avenue, Chicago, Illinois 60626, or its equivalent. The filter material used can also be obtained from the same company or from Filter Fabrics, 814 E. Jefferson Street, Goshen, Indiana 46528, or their equivalent.

**4/** When required, the procedure for determining the particle size of the Type III product shall be as follows:

Assemble sieves and collecting pan in the following order from top to bottom; U.S. Standard Sieve No. 8, No. 12, No. 40, and pan. Place the weighed contents (to nearest gram) of a sample package on the top sieve and attach lid. Place assembly in a Ro-tap or equivalent mechanical shaking device and shake for 1 minute, in a room in which the relative humidity does not exceed 40 percent. Weigh product remaining on each sieve and in the collecting pan respectively. Calculate results in percentage and report results to nearest 1 percent.

**6.4 Test results.** The test results for caffeine and moisture shall be reported to the nearest 0.1 percent. The test result for sediment shall be reported to the nearest 0.1 milligram. The test result for particle size shall be reported to the nearest 1.0 percent. Any result not conforming to the analytical and physical requirements shall be cause for rejection of the lot.

**7. MANUFACTURER'S/DISTRIBUTOR'S PRODUCT ASSURANCE.** The manufacturer/distributor shall certify that the instant coffee provided shall meet the salient characteristics of this CID,

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conform to the their own specifications, standards, and quality assurance practices, and be the same instant coffee offered for sale in the commercial market. The purchaser reserves the right to require proof of conformance.

**8. REGULATORY REQUIREMENTS.** The delivered instant coffee shall comply with all applicable Federal, State, and local mandatory requirements and regulations relating to the preparation, packaging, labeling, storage, distribution, and sale of instant coffee within the commercial marketplace. Delivered instant coffee shall comply with all applicable provisions of the Federal Food, Drug, and Cosmetic Act, the Fair Packaging and Labeling Act and regulations promulgated thereunder.

**9. QUALITY ASSURANCE PROVISIONS.** *Purchaser shall specify 9.2 or 9.3; purchaser may specify 9.1 with 9.1.1 or 9.1 with 9.1.2.*

**9.1 Manufacturer's quality assurance.** When required in the solicitation, contract, or purchase order, the product manufacturer shall be required to provide evidence, by certificate, that the manufacturing plant has undertaken one of the following quality assurance measures within 12 months prior to providing a bid, or no later than 10 business days from the date of awarding of the contract. Failure to provide this documentation within the proper time frame may result in the contract being terminated for cause.

**9.1.1 Plant systems audit.** A plant systems audit (PSA) conducted by USDA, Agricultural Marketing Service (AMS), or another audit performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS PSA verifies the manufacturer's capability to produce products in a clean, sanitary environment in accordance with Title 21 Code of Federal Regulations Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food, and verifies that the manufacturer has in place an internal quality assurance program. The AMS PSA determines the manufacturer's ability to produce under this CID, if the products of interest are identified at the time of the PSA.)*

**9.1.2 Plant survey.** A plant survey conducted by USDA, AMS, or another survey performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS plant survey audit verifies that, at the time of the survey, the manufacturer produces products in a clean, sanitary environment in accordance with Title 21 Code of Federal Regulations Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.)*

**9.2 Manufacturer's/distributor's certification.** When required in the solicitation, contract, or purchase order, the manufacturer/distributor will certify that the finished instant coffee distributed meets or exceeds the requirements of this CID.

**9.3 USDA certification.** When required in the solicitation, contract, or purchase order that product quality and acceptability or both be determined, the Processed Products Branch (PPB), Fruit and Vegetable Programs (FVP), Agricultural Marketing Service (AMS), USDA, shall be the certifying program. PPB inspectors shall certify the quality and acceptability of the instant coffee in accordance with PPB procedures which include selecting random samples of the packaged instant coffee, evaluating the samples for conformance with the salient characteristics of this CID and other contractual requirements, and documenting the findings on official PPB score sheets and/or certificates. In addition, when required in the solicitation, contract, or purchase order, PPB inspectors will examine the instant coffee for conformance to the United States Standards for Condition of Food Containers in effect on the date of the solicitation.

**10. PACKAGING.** Preservation, packaging, packing, labeling, and case marking shall be commercial unless otherwise specified in the solicitation, contract, or purchase order.

**11. USDA INSPECTION NOTES.** When Section 9.3 is specified in the solicitation, contract, or purchase order, USDA certification shall include evaluation of the quality and condition of samples of packaged instant coffee, and compliance with requirements in the following areas:

- Salient characteristics (Sec. 5).
- Analytical requirements *when specified in the solicitation, contract, or purchase order* (Sec. 6.1). When USDA analytical testing is specified, PPB inspection personnel shall select samples and submit them to the USDA, Science and Technology Programs (S&TP) laboratory for analysis.
- Packaging requirements (Sec. 10 or as specified in the solicitation, contract, or purchase order).

**12. REFERENCE NOTES.**

**12.1 USDA certification contact.** For USDA certification, contact the **Branch Chief, PPB, FVP, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247** telephone (202) 720-4693, Fax (202) 690-1527, or via E-mail: **james.rodeheaver@usda.gov.**

**12.2 Analytical testing and technical information.** For USDA technical information on analytical testing, contact the **Branch Chief, Technical Service Branch, S&TP, AMS, USDA, STOP 0272,**

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**1400 Independence Avenue, SW, Washington, DC 20250-0272, telephone (202) 690-0621, or via E-mail: [anita.okrend@usda.gov](mailto:anita.okrend@usda.gov).**

### **12.3 Sources of documents.**

#### **12.3.1 Source of information for nongovernmental document is as follows :**

Copies of the Official Methods of Analysis of the AOAC International may be obtained from: **AOAC International, 481 North Frederick Avenue, Suite 500, Gaithersburg, MD 20877, telephone (301) 924-7077. Internet address: <http://www.aoac.org>.**

#### **12.3.2 Sources of information for governmental documents are as follows :**

Applicable provisions of the Federal Food, Drug, and Cosmetic Act are contained in 21 CFR Parts 1 to 199. This document may be purchased from: **Superintendent of Documents, ATTN: New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954. Credit card (MasterCard or Visa) purchases may be made by calling the Superintendent of Documents (202) 512-1800 or on the Internet at: <http://www.nara.gov/fedreg>.**

Copies of United States Sediment Standards for Milk and Milk products and copies of photographs of the sediment standards may be obtained from: **Branch Chief, Dairy Standardization Branch, DP, AMS, USDA, Stop 0230, 1400 Independence Ave., SW, Washington, DC 20250-0230, telephone (202) 720-7473 or on the Internet at: <http://www.ams.usda.gov/dairy/stand.htm>.**

Copies of the FDA Technical Bulletin No.5 - Macroanalytical Procedures Manual, Chapter V, 1984 may be obtained from: **Internet address: <http://www.cfsan.fda.gov/~dms/mpm-3.html>.**

Copies of this CID and the United States Standards for Condition of Food Containers are available from: **Head, Food Quality Assurance Staff, FVP, AMS, USDA, STOP 0243, 1400 Independence Ave., SW, Washington, DC 20250-0243, telephone (202) 720- 9939, Fax (202) 690-0102, via E-mail: [FQAStaff@usda.gov](mailto:FQAStaff@usda.gov) or on the Internet at: <http://www.ams.usda.gov/fv/fvqual.htm>.**

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: **Commander, Defense Supply Center Philadelphia, ATTN: DSCP-HSL, 700 Robbins Avenue, Philadelphia, PA 19111-5092 or Fax (215) 737-2963, or via E-mail: [sagallagher@dscp.dla.mil](mailto:sagallagher@dscp.dla.mil).**



Military activities should submit requests for copies of this CID to: **Standardization Documents Order Desk, Document Automation And Production Service, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.**

**MILITARY INTERESTS:**

**Custodians**

Army - GL  
Navy - SA  
Air Force - 50

**CIVIL AGENCY COORDINATING ACTIVITIES:**

DOJ - BOP  
HHS - FDA, NIH, IHS  
USDA - FV  
VA - OSS

**PREPARING ACTIVITY:**

**Review Activities**

Army - MD, QM  
Navy - MC

DLA - SS

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